CLAIMS:

1.   Method of detection of erroneous image sample data of defective image samples from a plurality of image sample data comprising a first number of image sample data assigned to a first color and at least a second number of image sample data assigned to a second color, wherein an image sample data under test is tested with respect to further image

5   sample data and
    –   a first kind of test is performed with respect to a further image sample data assigned to the same color as that to which the image sample data under test is assigned; and
    –   a second kind of test is performed with respect to still a further image sample data assigned to a different color than that to which the image sample data under test is

10   assigned.

2.   Method as claimed in claim 1, characterized in that an image sample data comprises a value of a pixel corresponding to an image sample.

15   3.   Method as claimed in one of the preceding claims, characterized in that a comparison of the image sample data under test with regard to a threshold value is made, in particular a comparison with a maximum value of noise level.

4.   Method as claimed in claim 1, characterized in that a first or second kind of

20   test is based on a maximum value (max) comparison.

5.   Method as claimed in one of the preceding claims, characterized in that image sample data are arranged in a stack from which an offset, a threshold and a variance of image sample data are defined.

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6.   Method as claimed in claim 3, characterized in that the threshold is defined as the sum of the variance and the offset.

7.   Method as claimed in claim 5 or 6, characterized in that a test comprises a comparison of a difference-value of at least two image sample data with respect to the variance.

5   8.   Method as claimed in any of the claims 5 to 7, characterized in that various variance values are defined for the variance with respect to a variety of modes, in particular a first variance value with respect to a snapshot mode and a second variance value with respect to a video mode.

10   9.   Method as claimed in one of the preceding claims, characterized in that a first or second kind of test takes into consideration a noise level correction.

10.   Method as claimed in one of the preceding claims, characterized in that a first or second test is essentially based on neighbor-comparison in a one-dimensional array or a
15   two-dimensional array of image sample data.

11.   Method as claimed in claims 1 to 10, characterized in that still further second kind of tests comprise at least one test selected from the group consisting of: nearest-neighbor-comparison, second-nearest-neighbor-comparison, further-neighbor-comparison.

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12.   Method as claimed in one of the preceding claims, characterized in that a plausibility test is performed as a third kind of test, in particular a plausibility test taking into consideration previous and/or following tests.

25   13.   Method as claimed in one of the preceding claims, characterized by real-time-performance, in particular the prevention of the use of a defect-memory.

14.   Method as claimed in one of the preceding claims, characterized in that a color parameter is applied to discriminate between a test with respect to image sample data
30   assigned to the same color and a test with respect to image sample data assigned to different colors.

15.   Method of image processing wherein

—   an image is provided by an optical system to an image color sensor adapted to detect
various colors, in particular red, green or blue, and sensor the image as a plurality of
image samples, and wherein

—   image sample data are read out from each single image sample of the image sensor and

5   the image sample data comprise color information, in particular color information of red,
green or blue,

—   the image sample data are transferred in an image signal from the image sensor to a signal
processor, and

—   the signal processor derives a video output from the image signal, wherein erroneous

10   image sample data of defective image samples are detected and corrected from the
plurality of image sample data wherein
image sample data is tested to thereby detect erroneous image sample data and
erroneous image sample data is corrected by replacing erroneous image sample data by
corrected image sample data,

15 characterized in that
the plurality of image sample data comprise a first number of image sample data assigned to
a first color and at least a second number of image sample data assigned to a second color,
and wherein
for image sample data under test the detection comprises the steps of:

20 —   comparing the image sample data under test to a threshold value,

—   performing a first kind of test with respect to further image sample data assigned to the
same color as that to which the image sample data under test is assigned,

—   performing a second kind of test with respect to still a further image sample data assigned
to a different color than that to which the image sample data under test is assigned,

25 —   performing a plausibility test as a third kind of test, taking into consideration a previous
and/or following test of still further image sample data.

16.   Method as claimed in the preceding claim characterized in that for detection
and correction a shift register, a threshold calculation and a memory are provided.

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17.   Method as claimed in claim 15 or 16 characterized in that the correction
comprises an interpolation.

18.   Method as claimed in claim 16 characterized in that a one-bit-line-memory or a two-bit-line-memory is provided.

19.   Method as claimed in claim 15 characterized in that the read-out from the
5   image sensor is a serial read-out.

20.   Processor device for deriving a video output from an image signal comprising a memory and a processing unit and an interface connectable to a photoelectric image sensor and to a monitor, which is adapted to execute a method of detection as claimed in any one of
10   the claims 1 to 14.

21.   Imager system comprising an optical system, a photoelectric image sensor and a processor device adapted to implement a method of image processing as claimed in anyone of the claims 15 to 20.

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22.   Imager system as claimed in claim 21 wherein the photoelectric image sensor is formed by a sensor selected from the group consisting of:
a CMOS-imager, a CCD-imager, a charge-transfer imager, a charge injection device, a bucket-brigade imager and a RGB-Bayer image sensor.

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23.   Program product for a computing system or a processor device, which can be stored on a medium and can be read out by the computing system or processor device, comprising a software code section, which induces the computing system or processor device to execute the method of detection as claimed in any one of the claims 1 to 20 when the
25   product is executed on the computing system or processor device, in particular when executed on a processor device of claim 21 or on an image system as claimed in any one of the claims 22 or 23.